

WHAT IS CLAIMED IS

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1. A communication apparatus comprising:
a semiconductor DAA having a line control
unit connected to a communication line network and a
serial IF unit connected to the line control unit
10 via an isolating circuit, the semiconductor DAA
controlling the communication line network and
transmitting and receiving data;
a modem for modulating and demodulating
the transmitted and received data; and
15 a system unit for controlling the
semiconductor DAA and the modem, wherein:
the line control unit includes a line
current detector for detecting a line current, and a
line voltage detector for detecting a line voltage;
20 and
the system unit obtains line impedance
based on the line current and the line voltage, and
adjusts a transmission level of the modem in
accordance with the obtained line impedance.

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2. The communication apparatus as claimed

5 in Claim 1 wherein,

the system unit determines whether the
line current detected by the line current detector
is within a predetermined range, and notifies a user
of a line failure if the line current is not within
10 the predetermined range.

15 3. The communication apparatus as claimed

in Claim 1 wherein,

the system unit determines whether the
line voltage detected by the line voltage detector
is within a predetermined range, and notifies a user
20 of a line failure if the line voltage is not within
the predetermined range.

4. The communication apparatus as claimed
in Claim 1 wherein,

the line current detector and the line
voltage detector start to detect the line current
5 and the line voltage, respectively, in response to a
detection start signal from the system unit.

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5. A communication apparatus comprising:
a semiconductor DAA having line
controlling means connected to a communication
line network and serial IF means connected to
15 the line controlling means via an isolating
circuit, the semiconductor DAA controlling the
communication line network and transmitting and
receiving data;
modem means for modulating and
20 demodulating the transmitted and received data;
and
a system unit for controlling the
semiconductor DAA and the modem means, wherein:
the line controlling means include line
25 current detecting means for detecting a line current,

and line voltage detecting means for detecting a line voltage; and

the system unit obtains line impedance based on the line current and the line voltage, and 5 adjusts a transmission level of the modem means in accordance with the obtained line impedance.

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6. The communication apparatus as claimed in Claim 5 wherein,

the system unit determines whether the line current detected by the line current detecting 15 means is within a predetermined range, and notifies a user of a line failure if the line current is not within the predetermined range.

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7. The communication apparatus as claimed in Claim 5 wherein,

the system unit determines whether the 25 line voltage detected by the line voltage detecting

means is within a predetermined range, and notifies a user of a line failure if the line voltage is not within the predetermined range.

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8. The communication apparatus as claimed in Claim 5 wherein,

10 the line current detecting means and the line voltage detecting means start to detect the line current and the line voltage, respectively, in response to a detection start signal from the system unit.

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9. A method for adjusting a transmission level of a modem in a communication apparatus comprising: a semiconductor DAA having a line control unit connected to a communication line network and a serial IF unit connected to the line control unit via an isolating circuit, the 25 semiconductor DAA controlling the communication line

network and transmitting and receiving data; the
modem for modulating and demodulating the
transmitted and received data; and a system unit for
controlling the semiconductor DAA and the modem, the
5 method comprising the steps of:

detecting a line current with a line
current detector in the line control unit;
detecting a line voltage with a line
voltage detector in the line control unit;
10 obtaining line impedance based on the line
current and the line voltage with the system unit;
and
adjusting the transmission level of the
modem in accordance with the obtained line impedance.